



**Sandia  
National  
Laboratories**



**U.S. DEPARTMENT OF  
ENERGY**

SSD Number	Requirement Text
SSD-5000	The System shall request waveform data segments from auxiliary seismic stations listed in the NDD.
SSD-5001	The System shall provide the System Maintainer the capability to configure seismic stations as either primary or auxiliary.
SSD-1636	
SSD-1637	
SSD-200	
SSD-5002	The data processing partition shall access and process all waveform data stored on the system.
SSD-5200	The System shall provide the System Maintainer the capability to configure the dissemination of data and products.
SSD-1277	
SSD-5201	The System shall provide station data to external users in no more than one (1) hour following an unplanned switch between the OPS and the ALT Subsystems.
SSD-5202	The System shall provide the System Controller the capability to initiate a switch between the OPS and ALT Subsystems.
SSD-5203	The System shall initiate the automatic processing of waveform data in no more than six (6) hours from the start of an unplanned switch between the OPS and the ALT Subsystems.

SSD-5204	The System shall provide the Analyst the capability to perform interactive reviews of processing results in no more than six (6) hours from the start of an unplanned switch between the OPS and the ALT Subsystems.
SSD-5205	The System shall provide the System Controller the capability to disseminate data and products in no more than six (6) hours from the start of an unplanned switch between the OPS and the ALT Subsystems.
SSD-2003	
SSD-2004	
SSD-2006	
SSD-2007	
SSD-2010	
SSD-2011	
SSD-2012	
SSD-2013	
SSD-2014	
SSD-2015	

SSD-5100	NOTE: The term 'Reports' encompasses many things such as events, event web pages, and event bulletins. However, the term also includes alerts regarding system status or events of interest. Subscription services refers to all of these and not necessarily restricted to those called out in the [IDC 3.4.1 Rev 6]
SSD-5101	The System shall provide the System Maintainer the capability to configure access to reports based on user.
SSD-5102	The System shall provide a subscription service that will allow Authorized External Users the capability to subscribe to reports and waveform data.
SSD-5103	The System shall distribute reports and waveform data as specified in the IDC Formats and Protocols document [version 3.4.1 Rev 6 as of 04/2014]
SSD-5104	The System shall provide a web services interface to reports and waveform data.
SSD-5105	The System shall provide the System User the capability to request reports and waveform data via email using SMTP.
SSD-5120	The System shall provide the System User the capability to receive reports and waveform data via email using SMTP.
SSD-5106	The System shall apply a digital signature to the reports and waveform data to be distributed.
SSD-5107	The System shall support at least 30000 requests for data and products per day.
SSD-5108	The System shall support at least 1000 authorized external users.
SSD-5109	The System shall support each authorized external user requesting up to 4GB of data per day.
SSD-5110	The System shall provide a prioritization scheme of queued requests such that reports provided through the GUI are served faster than SMTP.
SSD-5111	The System shall respond to requests for waveform data and reports in no more than xx minutes (measured from the receipt of the SMTP request to the system sending the SMTP message) under nominal conditions.
SSD-5112	The System shall respond to requests for waveform data and reports in no more than xx minutes (measured from the receipt of the SMTP request to the system sending the SMTP message) under load conditions.
SSD-5113	The System shall provide an extensible architecture for the distribution of new reports.
SSD-5114	The System shall provide a grammar for formulating requests for waveform data that provides the specification of attribute values (e.g. time, station, associated with event) of the data to be transferred.
SSD-5115	The System shall provide a grammar for formulating requests for reports that provides the specification of attribute values (e.g. time, location, magnitude, source type) of the data to be transferred.

SSD-5116	The System shall provide a grammar for formulating requests for reports or waveform data that provides the specification of the transfer methodology (e.g. SMTP or file transfer protocol).
SSD-5117	The System shall provide the System Maintainer the capability to configure access to waveform data based on the user.
SSD-5118	The System shall provide the capability to distribute all waveform data for an event that satisfies a user-specified set of rules.
SSD-5119	The System shall apply user-specified processing to existing data and products to create custom reports.

Maps to SRD #
SRD-432, SRD-434
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SRD-475
SRD-475
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SRD-483a SRD-484 SRD-163
SRD-484
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